What is claimed is:

1. A composite ion selective electrode comprising (1) a calcium ion selective electrode member and a hydrogen ion selective electrode member,

in which the calcium ion selective electrode member comprises an electro-insulating support, a pair of electrode units each of which comprises a silver layer and a silver halide layer, and which are electrically separated from each other, an electrolyte layer, and a calcium ion selective membrane, and

in which the hydrogen ion selective electrode member comprises an electro-insulating support, a pair of electrode units each of which comprises a silver layer and a silver halide layer, and which are electrically separated from each other, an electrolyte layer, and a hydrogen ion selective membrane;

(2) an electro-insulating member having two openings in which one opening is provided for introducing a sample liquid into the composite electrode and another opening is provided for introducing a reference liquid into the composite electrode;

(3) a pair of distributing members in which one member distributes the introduced sample liquid to the ion selective membrane of each ion selective electrode member at a site corresponding to one electrode unit and in which another member distributes the introduced reference liquid to the ion selective membrane of each ion selective electrode member at a site corresponding to another electrode unit; and

(4) a bridge member which is provided on the electro-insulating member to bridge the two openings of the electro-insulating member so as to electrically connect the introduced sample liquid and the introduced reference liquid;

which is characterized in that the calcium ion selective membrane has a thickness of 5 to 30 μm, and the hydrogen ion selective membrane contains tri-n-dodecylamine and trisethylhexyl trimellitate.

2. The composite ion selective electrode of claim 1, wherein the calcium ion selective membrane contains calcium di[4-(1,1,1,3-tetramethylbutyl)phenyl] phosphate.

3. The composite ion selective electrode of claim 2, wherein the calcium ion selective membrane comprises a vinyl chloride-vinyl acetate copolymer, dioctylphenyl phosphonate, and calcium di[4-(1,1,1,3-tetramethylbutyl)-phenyl] phosphate.

4. The composite ion selective electrode of claim 1, wherein the thickness of calcium ion selective membrane is in the range of 5 to 20 μm.

5. The composite ion selective electrode of claim 4, wherein the thickness of calcium ion selective membrane is in the range of 10 to 18 μm.

6. The composite ion selective electrode of claim 1, wherein the hydrogen ion selective membrane has a thickness of 5 to 30 μm.

7. The composite ion selective electrode of claim 1, wherein the electrolyte layer comprises sodium chloride.

Sub B6 8. A method for determining a standardized calcium ion concentration in a sample blood, which comprises the steps of:

spotting a sample blood and a reference liquid onto openings of the electro-insulating member of the compos-

ite ion selective electrode of claim 1, respectively;

measuring potentiometrically a calcium ion concentration and a hydrogen ion concentration in the sample blood; and

incorporating the measured calcium ion concentration and the measured hydrogen ion concentration into the following equation to obtain a value of Log (standardized iCa):

$$\text{Log (standardized iCa)} = \text{Log (iCa at pH)} - 0.22 \times (7.4 - \text{pH})$$

in which iCa means a calcium ion concentration and pH means a hydrogen ion concentration.

9. A calcium ion selective electrode comprising

(1) a calcium ion selective electrode member which comprises an electro-insulating support, a pair of electrode units each of which comprises a silver layer and a silver halide layer, and which are electrically separated from each other, an electrolyte layer, and a calcium ion selective membrane;

(2) an electro-insulating member having two openings which is provided on the calcium ion selective electrode member and in which one opening is provided for introducing a sample liquid into the composite electrode and another opening is provided for introducing a reference liquid into the composite electrode; and

(3) a bridge member which is provided on the electro-insulating member to bridge the two openings of the electro-insulating member so as to electrically connect the introduced sample liquid and the introduced reference liquid;

which is characterized in that the calcium ion selective membrane has a thickness of 5 to 30 μm.

10. The calcium ion selective electrode of claim 9, wherein the calcium ion selective membrane contains calcium di[4-(1,1,1,3-tetramethylbutyl)phenyl] phosphate.

11. The calcium ion selective electrode of claim 10, wherein the calcium ion selective membrane comprises a vinyl chloride-vinyl acetate copolymer, dioctylphenyl phosphonate, and calcium di[4-(1,1,1,3-tetramethylbutyl)-phenyl] phosphate.

12. The calcium ion selective electrode of claim 10, wherein the thickness of calcium ion selective membrane is in the range of 5 to 20 μm.

13. The calcium ion selective electrode of claim 12, wherein the thickness of calcium ion selective membrane is in the range of 10 to 18 μm.

14. The calcium ion selective electrode of claim 10, wherein the electrolyte layer comprises sodium chloride.

15. A hydrogen ion selective electrode comprising

(1) a hydrogen ion selective electrode member which comprises an electro-insulating support, a pair of electrode units each of which comprises a silver layer and a silver halide layer, and which are electrically separated from each other, an electrolyte layer, and a hydrogen ion selective membrane;

(2) an electro-insulating member having two openings which is provided on the hydrogen ion selective electrode member and in which one opening is provided for introducing a sample liquid into the composite electrode and another opening is provided for introducing a reference liquid into the composite electrode; and

(3) a bridge member which is provided on the electro-insulating member to bridge the two openings of the electro-insulating member so as to electrically connect the introduced sample liquid and the introduced reference liquid;

which is characterized in that the hydrogen ion selective membrane contains tri-n-dodecylamine and trisethylhexyl trimellitate.

16. The hydrogen ion selective electrode of claim 15, wherein the hydrogen ion selective membrane comprises tri-n-dodecylamine, trisethylhexyl trimellitate, potassium tetrakis(p-chlorophenylborate) and a vinyl chloride-vinyl acetate copolymer.

17. The hydrogen ion selective electrode of claim 15, wherein the hydrogen ion selective membrane has a thickness of 5 to 30 μm.

18. The composite ion selective electrode of claim 15, wherein the electrolyte layer comprises sodium chloride.